

HORMONAL REGULATION OF FRUIT DEVELOPMENT

Jocelyn Ozga* and Dennis Reinecke

Plant Physiology and Molecular Biology Research Group
Department of Agricultural, Food and Nutritional Science
University of Alberta
Edmonton, Alberta, Canada T6G 2P5

Fruit development involves a complex interplay of cell division, differentiation and expansion of sporophytic and gametophytic tissues that is carefully coordinated over time. Plant hormones are signals that regulate many processes of plant development including fruit development leading to mature fruit and viable mature seed. Auxins and gibberellins (GAs) have been implicated in the coordination of development between the fruit and the seeds. In the past hormone application studies and hormone analysis studies have supported that fruit development is in part regulated by hormonal interaction. More recently, biochemical and molecular studies are showing how hormones effect fruit development. This talk will focus on understanding the interaction between auxin and gibberellin in pea fruit and seed development using physiological, biochemical, and molecular approaches.